



Australian Government

Department of Education, Employment and Workplace Relations

MEM18011C Shut down and isolate machines/equipment

Release: 2

MEM18011C Shut down and isolate machines/equipment

Modification History

Single band identifier removed to clarify dual status.

Unit Descriptor

Unit descriptor	This unit covers isolating and shutting down machines and equipment.
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Application of the Unit

Application of the unit	<p>This unit applies to situations that require extensive system knowledge that exclude the straightforward starting/stopping of machinery/equipment through the use of simple switching, including use of emergency switches. Shut-down/isolation is undertaken autonomously or as part of teamwork.</p> <p>Band:</p> <p>This unit has dual status and is to be regarded as both a specialisation band A unit and Specialisation band B unit for progression to C7 (AQF level IV).</p> <p>Unit Weight: 2</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Shut down machine/equipment	1.1. Machine/equipment operational function is determined and understood. 1.2. Shut-down sequence is undertaken safely and to standard operating procedures. 1.3. Machine/equipment is depressurised/emptied/de-energised/bled to standard operating procedures. 1.4. Safe shut-down of machine/equipment is verified. 1.5. Safety/security lock-off devices and signage are installed to standard operating procedures. 1.6. Machine/equipment is left in clean and safe state.
2. Isolate machine/equipment	2.1. Machine/equipment operational function is determined and understood. 2.2. Isolation methods and points are recognised and identified. 2.3. Isolation is undertaken safely and to standard operating procedures. 2.4. Safe isolation of machine/equipment is verified. 2.5. Safety/security lock-off devices and signage are installed to standard operating procedure. 2.6. Machine/equipment is left in clean and safe state.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on written job instructions, specifications and other applicable reference documents
- checking and clarifying task-related information
- entering information onto proformas and standard workplace forms
- shutting down machine/equipment
- purging/de-energising equipment
- installing safety/security lock-off devices and signage\

REQUIRED SKILLS AND KNOWLEDGE**Required knowledge**

Look for evidence that confirms knowledge of:

- the operational function of the machine/equipment
- the shut-down sequence
- the procedures for shutting down and isolating the machine/equipment
- safety precautions for shutting down and isolating the machine/equipment
- procedures for purging/de-energising the machine/equipment and reasons for doing so
- procedures for verifying machine/equipment shut-down and isolation and reasons for verifying
- the safety/security lock-off devices and signage to be installed
- the reasons and procedures for installing lock-off devices and signage
- the reasons for ensuring the machine/equipment is left in a clean, safe state
- hazards and control measures
- use and application of personal protective equipment
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	A person who demonstrates competency in this unit must be able to shut down and isolate machines/equipment.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.
Context of and specific resources for assessment	<p>This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with shutting down and isolating machines/equipment or other units requiring the exercise of the skills and knowledge covered by this unit.</p>
Method of assessment	Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.
Guidance information for assessment	

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Shut down/isolate	Shut down/isolation means and includes isolation of mechanical, electrical drives, pipework (pressure) rotating equipment etc. utilising electrical lock-off isolators, mechanical and power driven valves etc. in accordance with standard operating instructions. Relevant regulations, Australian standards and legislative requirements governing isolation and shut-down must be complied with
Machine/equipment	Manual, semi automatic and automatic machines of a stand-alone, continuous production or process nature.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units	

Competency field

Competency field	Maintenance and diagnostics
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